Fran Du Melle
Deputy Managing Director

Washington Office
1726 M Street, N.W.
Suite 902
Washington, DC 20036-4502
Phone: (202) 785-3355
FAX: (202) 452-1805

National Headquarters:
1740 Broadway
New York, N.Y. 10019-4374

John R. Garrison
Managing Director

When You Can't Breathe, Nothing Else Matters'

AMERICAN LUNG ASSOCIATION.

TESTIMONY OF

ALFRED MUNZEB, M.D.

Before the

Subcommittee on Health and Environment
and the
Subcommittee on Oversight and Investigations

Washington, DC

May 8, 1997

MISTER CHAIRMAN AND MEMBERS OF THE COMMITTEE:

My name is Alfred Munzer, M.D. a physician specializing in diseases of the lung and past President of the American Lung Association. I am also Director of Pulmonary and Critical Care Medicine at the Washington Adventist Hospital in Takoma Park, Maryland.

I am pleased to be here this morning to present testimony on behalf of the American Lung Association on the benefits of strong air quality standards.

The following information is provided in compliance with clause 2(g)(4) of House Rule Xl of the Rules of the House of Representatives:

> The American Lung Association received $479,757.00 in federal grants and contracts for fiscal year 1997, $685,606.00 in federal grants and contracts in fiscal 1996 and $720,749.00 in federal grants and contracts in fiscal year 1995.
>
> The American Thoracic Society (ATS), the medical section of the American Lung Association, is a medical speciality organization with 12,600 members. Approximately 25 percent of the members reside outside of the United States. Further, approximately 50 percent of the members are clinicians and do not conduct research.
>
> Members of ATS do compete successfully for federal research grants. Currently, no data is collected on the source of funds received by members in biomedical research. To provide an estimate, research abstracts presented at the annual ALA/ATS international Conference were used as surrogate data. Of the 5,627 abstracts to be presented at the May 1997 meeting, 466 abstracts were submitted

by ATS members who received federal support. No current data is available on the dollar amount of this support.

The American Lung Association believes that the science supports EPA's proposal to set air quality standards that would be more protective of public health. We believe, however, that the levels should be significantly tighter than those proposed by EPA. For example, in a report released in January of this year, the American Lung Association demonstrated that EPA's proposal for the control of fine particles of 2.5 microns and below would actually fall short of what is needed to provide a safety margin to protect the public health. Using monitored particulate matter data from 1993-95, the report concludes that approximately 2 to 5 million people with chronic bronchitis and emphysema, 2 to 5 million people with asthma, and 1 to 3 million people with coronary heart disease would be unprotected by EPA's proposed standard. In addition to these populations, the ALA report found that about 7 to 17 million children and 5 to 12 million elderly live in areas that would not be protected by EPA's proposals.

Similarly, several studies published over the past five years have

linked ozone exposure at relatively low levels with an increase in hospital admissions for respiratory causes, including asthma, chronic obstructive pulmonary disease, and pneumonia. As a result of our review of these studies, the ALA recommended standard of 0.070 ppm, one exceedence per year is consistent with the bottom of the range included in EPA's ozone standard in the Staff Paper. In our view, this level provides the most public health protection with a margin of safety required by the Clean Air Act.

THE CURRENT OZONE NAAQS DOES NOT PROTECT HEALTHY OR VULNERABLE PEOPLE FROM ADVERSE EFFECTS OF OZONE

Numerous epidemiological studies have documented that as ozone levels rise, so do emergency room visits and hospital admissions. Data from Toronto and Southern Ontario analyzed by my colleague Dr. Thurston who is with us today, showed large increases in hospital admissions due to ozone and acidic air pollution, even at levels well below the current health standard. On average summer pollution days the ozone

levels, typically below the current U.S. standard, were linked to 29 percent of all respiratory admissions. At ozone levels 33 percent below the current National Air Quality Standard (NAAQS), children at summer champ and healthly exercising adults can not breathe normally, suffering from shortness of breath, coughing, painful breathing and loss of lung function On high pollution days ozone and acid particles were associated with approximately 50 percent of respiratory hospital admissions. Another study found that when ozone levels were above .60 parts per million (ppm) – a level one-half of the current standard -- emergency room visits for asthma occurred 28 percent more frequently.

However, many researchers believe the documented hospitalizations are the "tip of the iceberg" in defining the health effects of ozone. Exposure to ozone at the current standard can cause a decrease in lung function even in healthy children and adults. Children are more susceptible to the effects of air pollutants than adults because their lungs and defense systems are still developing, they breathe more air in proportion to their body weight than do adults, and they tend to be more active in the summer when ozone is a particular problem. Many scientists

and physicians are concerned that chronic irritation from breathing ozone might influence the normal healthy development of the lung during childhood and contribute to the development of serious lung disease when our children become adults. Moreover, children with preexisting lung problems pay the greatest price for breathing polluted air. For example, some 10 percent of American children develop symptoms of asthma at one time or another. That number has doubled over the past 18 years.

While it has yet to be proven that ozone causes asthma, although important evidence has been found, what we do know is that exposure to ozone in this increasingly large number of children poses a serious threat to their respiratory health. Exposure to ozone for these children means that the inflammation in their lungs will be increased and that preexisting inflammation and irritation will not heal. For some of these children this exposure means increased suffering, missed school, and may eventually mean failure in school and lost opportunities. For other children in our cities it means that a severe asthma attack that may have been controlled by treatment in an intensive care unit will not be controlled and that these children will die.

Studies of increased mortality in Los Angeles and New York City clearly linked ozone to increased death rates. A 10 percent increase above average ozone levels was associated with approximated 2 additional deaths per 1,000; similarly, a 50 percent increase above average ozone levels (not uncommon in the summer) was associated with 10 additional deaths per 1,000. Another study showed that healthy young adults developed significant lung function reductions, additional coughing and breathing pains, and increased airway reaction to irritants when exposed to ozone at levels between .80 to .120 ppm while moderately exercising for five hours. The exercise was designed to mimic that of a construction worker. Lung inflammation was also documented with these exposures. A review of studies conducted on healthy exercising adults revealed that while most subjects experienced a 5 to 15 percent decrease in lung function at or below the current federal standard, some sensitive individuals suffered a debilitating 40 to 50 percent loss. And finally, a study of the respiratory effects of ozone on amateur cyclists found that healthy exercising men suffered significant symptoms such as shortness of breath, chest tightness, and wheezing at ozone concentrations well below the current U.S. ozone standard.

Although the primary effects in the impressive body of research which we believe supports a tighter ozone standard primarily relates to effects ozone has in causing or contributing to illness, which may result in hospitalization, the American Lung Association would like to call attention to the growing body of research linking ambient levels of ozone to mortality. Indeed, several studies have been published since CASAC reviewed the Staff Paper and the Criteria Document for Ozone, in July, 1996. While the EPA has identified the link between ozone and early death as a "factor" taken into consideration, it explicitly relied on the morbidity effects as the principal rationale for setting a new standard because of the limited amount of available information related to mortality effects.

As Congress and the public review EPA's proposal for a tighter ozone standard , we submit that this data must not be ignored. Some of these studies show that, in some cities, as ozone increases to levels commonly found in the United States, the risk of premature death increases from two to six percent among the people exposed to this air pollution. EPA has been criticized for including reduction of mortality

among the benefits identified in its Regulatory Impact Analysis for the ozone proposal. We would assert that given the growing body of evidence linking ozone exposure to early death, EPA should provide estimates of the benefits of reducing ozone-related mortality even though this data may not be sufficient by itself to provide the scientific basis for a tighter standard. This data certainly increases the urgency in proceeding with tightening the ozone standard and lowering ozone levels that we know harm people.

As adults we share a responsibility to provide for and protect our children and other vulnerable populations. As parents, most of us are naturally programmed to spare no sacrifice for the benefit of our own children. It is just as important that, as a society, we protect all of our children and other vulnerable populations from harm. We must take action to ensure that our children and others with respiratory problems do not suffer sirnply by breathing the air in our cities.